

Appl. No. 10/005,210
Reply to Office Action of June 5, 2003

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended) A method for tracking the a maximum power point of a solar panel, comprising:

- (a) providing a pulsedwidth modulated (PWM) DC/DC converter between the an output of said panel and a load, and
- (b) introducing a perturbation into a switching parameter of said converter
- (c) determining input characteristics of said converter;
- (d) using said input characteristics to determine said maximum power point.

2. (currently amended) A method as claimed in claim 1 wherein said parameter is the a duty cycle of at least one switching device in the converter.

3. (currently amended) A method as claimed in claim 1 wherein said parameter is the a switching frequency of at least one switching device in the converter.

4. (currently amended) Apparatus for tracking the a maximum power point of a solar panel, comprising:

- (a) a pulsedwidth modulated (PWM) DC/DC converter between the an output of the solar panel and a load, and
- (b) means for introducing a perturbation into a switching parameter of said converter
- (c) means for determining input characteristics of said converter;
- (d) means for determining said maximum power point from said input characteristics.

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5. (currently amended) Apparatus as claimed in claim 4 wherein said converter operates in switching mode and said perturbation means comprises means for introducing a perturbation into the a duty cycle of at least one switching device of said converter.

6. (currently amended) Apparatus as claimed in claim 4 wherein said converter operates in switching mode and said perturbation means comprises means for introducing a perturbation into the a switching frequency of at least one switching device of said converter.

7. (currently amended) Apparatus as claimed in claim 4 wherein said converter is a comprises one of the group consisting of a SEPIC or converter and a Cuk converter.

8. (new) A method as claimed in claim 2 wherein said input characteristics comprise a maximum variation in an input voltage and a voltage stress in said at least one switching device.

9. (new) A method as claimed in claim 3 wherein said input characteristics comprise a maximum variation in an input voltage and an average value of said input voltage in said at least one switching device.

10. (new) Apparatus as claimed in claim 5 wherein said input characteristics comprise a maximum variation in an input voltage and a voltage stress in said at least one switching device.

11. (new) Apparatus as claimed in claim 6 wherein said input characteristics comprise a maximum variation in an input voltage and an average value of said input voltage in said at least one switching device.